

ABSTRACT OF THE DISCLOSURE

Fuel cell power systems and methods of operating fuel cell power systems are described. According to one aspect, a fuel cell power system includes a fuel cell configured to generate electrical energy; switch mode power conditioning circuitry configured to electrically condition the electrical energy generated by the fuel cell, wherein the switch mode power conditioning circuitry comprises a controller configured to monitor an electrical status of the fuel cell and to adjust the conditioning of the electrical energy using the switch mode power conditioning circuitry responsive to the monitoring, wherein the controller is configured to provide a pulse width modulated control signal to control the switching of the switch mode power conditioning circuitry and to vary a duty cycle of the control signal to adjust the conditioning of the electrical energy using the switch mode power conditioning circuitry.